

A STUDY OF THE RELATIONSHIP BETWEEN THE
SOCIAL MATURITY AND THE INTELLIGENCE OF NURSERY
SCHOOL PUPILS

A THESIS
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Chapter I

INTRODUCTION

Statement of the Problem.—The problem of this investigation is to study the relationship between the social maturity and the intelligence of fifty Negro nursery school pupils.

Social maturity in this study is considered to be that which is measured by the Vineland Social Maturity Scale,¹ and intelligence is that which is measured by the Revised Terman Binet Scale, Form L.

Historical Background.—Charlotte Bühler discussed the earliest work done in studying social development in her article entitled, "The Social Behavior of Children." According to Bühler:²

It was an American, Monroe, who in 1899 made the first questionnaire study of what he called the social consciousness of children. But very little was done in the decade after Monroe made this first start in the direction of developmental social psychology. There were a number of questionnaire studies, i.e., studies of children's ideals, children's ambitions, etc., but the lack of a systematic point of view was common to all those efforts. It is only in the last ten years that a systematic study of the social behavior and development of children has taken place.

Some of the more important studies within the last few years have been conducted by Bühler³ Barker,⁴ Thomas,⁵ Loomis,⁶ Beaver,⁷

¹ See appendix (a) for the revised condensed manual of direction by Edgar Doll.

² Charlotte Bühler, "The Social Behavior of Children," ed., Carl Murchison, A Handbook of Child Psychology, (Worcester, Mass., 1933), p. 374.

³ Ibid., pp. 374-405.

⁴ Margaret Barker, A Technique for Studying the Social-Material Activities of Young Children (New York, 1930).

⁵ Dorothy S. Thomas, Some New Technique For Observing the Social Behavior (New York, 1929).

⁶ Alice M. Loomis, A Technique For Observing The Social Behavior of Nursery School Children (New York, 1931).

⁷ Alma Beaver, The Initiation of Social Contacts By Pre-School Children (New York, 1932).

Gesell,⁸ Sherbon,⁹ Anderson,¹⁰ Doll and McKay.¹¹

In her study Bühler¹² described three types of social behavior in infants from six to eighteen months of age--the socially blind, the socially dependent, and the socially independent.

Margaret Barker's¹³ study illustrates methods of checking the reliability of observation of spontaneous activities of young children.

Dorothy Thomas,¹⁴ Alice M. Loomis,¹⁵ and Alma P. Beaver¹⁶ set forth methods in their studies by which social responses may be scientifically recorded and analyzed.

As a result of their observations, Gesell¹⁷ and Sherbon¹⁸ were able to draw certain conclusions about the personal-social development of the average child of each age level.

⁸ Arnold Gesell, The Mental Growth of The Pre-School Child (New York, 1925) Chapter XXXII, pp. 536-596.

⁹ Florence Sherbon, The Child, His Origin, Development and Care (New York, 1934) pp. 536-601.

¹⁰ Meta L. Anderson, "Education For Social Maturity Bulletin," Training School Bulletin, 33 (February, 1937) pp. 185-204.

¹¹ Edgar Doll and Elizabeth McKay, "The Social Competence of Special Class Children," Journal of Educational Research, Vol. XXXI (October, 1937) pp. 1-19.

¹² Charlotte Bühler, op. cit., pp. 374-405.

¹³ Margaret Barker, op. cit., pp. 1-69.

¹⁴ Dorothy S. Thomas, op. cit., pp. 1-203.

¹⁵ Alice M. Loomis, op. cit., pp. 5-99.

¹⁶ Alma P. Beaver, op. cit., pp. 1-65.

¹⁷ Arnold Gesell, op. cit., pp. 376-397.

¹⁸ Florence Sherbon, op. cit., pp. 536-596.

Meta L. Anderson¹⁹ made a study of the relationship of the intelligence quotients and the social quotients of special class students in three schools in Newark, New Jersey.

Edgar Doll²⁰ was able to find the intelligence quotients and the social quotients of the special class students and the institutional children at Vineland, New Jersey.

The last two studies listed are the only ones found which are pertinent to the present investigation. The findings of these studies are mentioned in a later section of this thesis.

Value of This Study.—The above discussion of the studies which have been made of the social development of children has shown that little has been done to find the relationship between intelligence and social maturity. This investigation should give additional information about the subject.

The Subjects.—The subjects chosen for this investigation were two, three, four, five and six-year olds in the Spelman College Nursery School. The same number of boys and girls, twenty-five of each, were included in the total number of fifty subjects. Ten subjects were selected from each of these five age groups.²¹

The Tests and Their Administration.—The director of the Spelman College Nursery School administered the Revised Terman-Binet Scale, Form L and computed the intelligence quotients.

The investigator used the Vineland Social Maturity Scale which was selected as the scale best adapted for the scientific study of the social

¹⁹Meta Anderson, op. cit., pp. 185-204.

²⁰Edgar Doll, op.cit., pp.153-165.

²¹The groups are numbered in the following manner: (1 to 2 years), (2 to 3 years), (3 to 4 years), (4 to 5 years), and (5 to 6 years).

maturity of young children. In his explanation of the scale Doll²² wrote:

In formulating the modus operandi of social competence thus conceived, we have employed six major expressions of social independence and responsibility. Namely: self-help, locomotion, communication, occupation, self-direction, and socialization. Each of these major categories of social behavior has for our purposes, been reduced to a succession of specific performances has its own maturation period, or growth curve, which reflects individual differences in rate of development. The central tendency of each growth curve can be calculated and its dispersion determined in statistical terms. The sum of the item performances can be expressed as a total score which reflects the degrees of maturation in social competence. The scores can be expressed as central tendencies for successive life age groups and thereby expressed as "social ages." These are methodically and statistically comparable to Binet Mental ages. These social ages (S. A.'s) may be expressed as social quotients (S. Q.) analogous to intelligence quotients.

The investigator studied the manual of directions for using the social maturity scale and became thoroughly acquainted with the method of scoring. Practice in giving the test was obtained by rating five children of the Courtland Street Day Nursery during the week of November.

The intelligence tests and the social maturity scale were not administered simultaneously, and, for this reason, the child may have been older at the time he was rated for social maturity than he was at the time he was given the intelligence test. Each child was observed by the writer and his teacher at the same time; a full day of observation at the Nursery school was devoted to each subject. This provided opportunities for seeing him participate in the following periods: Work or crafts and arts, music, story hour, lunch, free play, and rest.

Each child's home was visited and the observer obtained information about the child's place for play, companions, home, independence in bathing,

²²Doll, "The Inheritance of Social Competence," The Journal of Heredity, Vol. XXVIII (May, 1937).

dressing, and going to bed.

The period of observation lasted from February fifth to March eighteenth.

Chapter II

DISCUSSION OF RESULTS

Analysis of Data:--Table 1 shows the distribution of chronological ages for the fifty subjects. The range for the group is from 24 months to 71 months. The mean age is 48.72 months. The ranges for the girls and boys as separate groups are from 26 months to 68 months and from 24 months to 71 months respectively. This enables one to see that the twenty-five girls have a wider distribution of chronological age. The mean ages for the two sex groups are 49.60 for the boys and 47.88 for the girls. The reliability of the differences between these mean ages was not determined.

Table 2 has been prepared to present the distribution of mental ages for the subjects. As it has been stated previously the 1937 revision of the Stanford-Binet Scale was the intelligence test used in this study. The range of mental ages for the total group is from 24 months to 86 months. The mean mental age is 54.84 months. The range for the girls is from 29 months to 84 months, and for the boys it is from 24 months to 86 months. It is interesting to note that though the girls have the wider range for chronological age, the boys have the wider mental age range. The boys' mean mental age is 55.08, while the girls' mean mental age is 54.60. The reliability of the difference between these mean mental ages was not determined.

Table 3 represents the intelligence quotients for the subjects. The range of quotients is from 82 to 140. The mean of the total distribution is 106.6. The girls' mean I. Q. is 121.7 while the mean for the boys is 94.7. The range for the boys is larger than that for the girls, since the former is from 82 to 140 and the latter is from 96 to 125.

It is interesting to note that these findings are similar in some

TABLE 1

DISTRIBUTION OF THE CHRONOLOGICAL AGES FOR THE TWENTY-FIVE
GIRLS AND TWENTY-FIVE BOYS WHO WERE USED AS SUBJECTS IN
THIS STUDY

Chronological Age in Months	Boys	Girls	Total
24 - 29.9	2	2	4
30 - 35.9	2	3	5
36 - 41.9	4	4	8
42 - 47.9	3	5	8
48 - 53.9	4	2	6
54 - 59.9	3	3	6
60 - 65.9	5	4	9
66 - 71.9	2	2	4

TABLE 2

DISTRIBUTION OF THE MENTAL AGES FOR THE TWENTY-FIVE
GIRLS AND TWENTY-FIVE BOYS

Mental Age In Months	Boys	Girls	Total
24 - 29.9	1	1	2
30 - 35.9	3	2	5
36 - 41.9	4	2	6
42 - 47.9	2	4	6
48 - 53.9	3	4	7
54 - 59.9	2	3	5
60 - 65.9	1	2	3
66 - 71.9	3	4	7
72 - 77.9	4	2	6
78 - 83.9	1	0	1
84 - 89.9	1	1	2

TABLE 3

DISTRIBUTION OF INTELLIGENCE QUOTIENTS FOR THE
FIFTY SUBJECTS

I. Q.	Boys	Girls	Total
80 - 84.9	1	0	1
85 - 89.9	0	0	0
90 - 94.9	0	0	0
95 - 99.9	1	1	2
100 -104.9	9	2	11
105 -109.9	5	3	8
110 -114.9	3	8	11
115 -119.9	0	9	9
120 -124.9	2	1	3
125 -129.9	1	1	2
130 -134.9	2	0	2
135 -139.9	0	0	0
140 -144.9	1	0	1

respects to those of Wellman²³ who found that the girls of the pre-school period tended to score higher on the intelligence test; however, her difference was not statistically significant. The difference between the means Intelligence quotients and this study, however, is reliable as the critical ratio is 8.85.

In Table 4, the modal score for the boys falls between 100-104-9. The modal score for the girls falls between 110-114.9. The modal score for the total distribution falls between 100-104. The mean S. Q. for the girls is 103.4 and the standard error of the mean is found to be 3.43. This shows that this measure is reliable. It is found that the boys had a mean score of 98.7 which is 5 points less than that made by the girls. The standard error of the difference between the mean score is 2.73. The mean for the total distribution is 101.4. The standard error of this measure is 2.98. This means that this measure is not reliable. The difference in the mean quotient for the boys and girls in Table 4 is unreliable as the critical ratio is only 1.07.

The range for the boys in this distribution is 63-122, while the range for the girls is 56-134. In this distribution the range for the quotients of the boys is 19 points smaller than the range for the girls. Further proof of their homogeneity^e is seen in the fact that the boys' S. D. is 13.65 and that for the girls is 16.35. The S. D. for the total distribution is 14.90.

Table 5 shows the social quotients which were obtained from the scales scored by the teacher. As one may see the 25 boys have a mean of 98.1 which is considerably lower than the mean quotient of 102.5 made by the girls.

²³Beth Wellman, "Sex Differences," Ed., Murchison, A Handbook of Child Psychology (Worcester, Massachusetts, 1933) p. 628.

TABLE 4

DISTRIBUTION OF THE SOCIAL QUOTIENTS AS DETERMINED
FROM THE SCALES SCORED BY THE OBSERVER

S. Q.	Boys	Girls	Total
55 - 59.9	0	1	1
60 - 64.9	1	0	1
65 - 69.9	0	0	0
70 - 74.9	1	1	2
75 - 79.9	1	0	1
80 - 84.9	0	0	0
85 - 89.9	2	2	4
90 - 94.9	3	1	4
95 - 99.9	4	2	6
100 - 104.9	5	4	9
105 - 109.9	4	4	8
110 - 114.9	1	5	6
115 - 119.9	2	2	4
120 - 124.9	1	0	1
125 - 129.9	0	1	1
130 - 134.9	0	2	2

TABLE 5

DISTRIBUTION OF THE SOCIAL QUOTIENTS AS DETER-
MINED FROM THE SCALE SCORED BY THE TEACHERS

S. Q.	Boys	Girls	Total
60 - 64.9	1	0	1
65 - 69.9	0	0	0
70 - 74.9	2	1	3
75 - 79.9	2	1	3
80 - 84.9	1	3	4
85 - 89.9	3	2	5
90 - 94.9	1	1	2
95 - 99.9	3	1	4
100 -104.9	4	5	9
105 -109.9	1	2	3
110 -114.9	1	2	3
115 -119.9	3	3	6
120 -124.9	2	1	3
125 -129.9	0	2	2
130 -134.9	1	1	2

The standard error of the mean quotient for the boys is 3.54 which shows that this measure is reliable. The critical ratio of the difference between the means for the boys and the girls in Table 5 is .9. This means that the difference between these measures is insignificant. The difference between the mean quotients for the boys tested by the observer and the teachers is found to be insignificant as the critical ratio is only .1. The difference between the girls' mean quotients for the two distributions is likewise insignificant as the critical ratio is .9. The mean quotient for the total distribution is 100.6. This is a little lower than the mean for the total distribution in Table 4. The critical ratio of .02 shows that the difference in the mean quotients for the total distribution in Tables 4 and 5 is also insignificant.

The largest frequency 4 for the boys in Table 5 falls between 100-104.9. The modal score for the girls also falls in this interval as their largest frequency 5 is found at this point. The largest frequency 9 for the total distribution is also found in this interval; thus, the modal score for the total distribution would fall at this point.

It is seen that the lowest social quotient for the girls is 63 and their highest is 126. The range of the quotients for the boys is 70 to 122. It is also seen that the range for the boys is 11 points smaller than the range of those for the girls. It is found, however, that the S. D. for the boys is 17.70 and that for the girls is 16.15. The S. D. for the total distribution is 17.00.

Table 6 presents the distribution of the combined quotients as determined from the quotients obtained from the scales scored by the teachers and the observer. The term combined social quotients means the same as the

result from the S. Q. obtained from the teacher's rating plus the S. Q. obtained from the observer's rating divided by two. Suppose a child's S. Q. obtained from the two scorings are 120 and 122. To compute this child's combined social quotient, the sum of 120 and 122 is divided by 2.

The distribution for the boys in Table 6 is bi-modal. The largest frequency 5 falls between 90-94.9 and 100-104.9. The distribution for the girls is also bi-modal. The largest frequency 4 falls between 95-99.9 and 120-124.9. The mean social quotient for the boys is 98.7 and the mean social quotient for the girls is 98.3. Both of these measures are reliable as the standard error for the girls' mean is 2.47 and the standard error for the boys is 3.42. The difference between these two means is insignificant as the critical ratio is .1. The mean for the total distribution is 101.1 and the standard error is 2.47. The range of the boys' scores in this distribution is 70-122 and that for the girls is 68-126. The range of S. Q.'s for the total distribution is 68-126. The S. D. for the girls is 12.35 and that for the boys is 17.10. The S. D. for the total distribution is 11.35.

The correlation of the social quotients obtained by the scales scored by the teachers and the intelligence quotients is .03 with a probable error of \neq .095. This correlation is so low that it can be said that this relationship is negligible. It is seen that the relationship is positive.

There is found a correlation of plus.02 between the quotients obtained from the scales scored by the observer and the intelligence quotients with a probable error of \neq .095. This correlation shows that the relationship is indifferent or negligible.

The correlation for the girls' combined quotients and intelligence is negligible as the r. is \neq .02 with a probable error of \neq .15.

TABLE 6

DISTRIBUTION OF THE COMBINED SOCIAL QUOTIENTS AS DETERMINED
FROM THE QUOTIENTS OBTAINED FROM SCALES SCORED BY TEACHERS
AND OBSERVER

S. Q.	Boys	Girls	Total
65 - 69.9	0	1	1
70 - 74.9	3	1	4
75 - 79.9	1	0	1
80 - 84.9	0	2	2
85 - 89.9	1	1	2
90 - 94.9	5	1	6
95 - 99.9	1	4	5
100 -104.9	5	3	8
105 -109.9	3	2	5
110 -114.9	4	3	7
115 -119.9	1	2	3
120 -124.9	1	4	5
125 -129.9	0	1	1

The correlation between the S. Q.'s obtained from the teachers' ratings and the S. Q.'s obtained from the observer's ratings is .03 with a probable error of .095. The r . in this case shows that the relationship is negligible.

Interpretation of the Data.—The correlations presented in this study are such that in each instance it can be said that there is negligible or indifferent relationship between sociability and intelligence. This justifies the conclusion that sociability should be dealt with as a separate factor as it does not necessarily accompany the growth of intelligence.

This conclusion coincides with Doll's²⁴ findings in his study of sub-normal children at Vineland. He discovered that the social quotients could be raised far above the intelligence quotients. For example, he found that the children in the special classes at Vineland, New Jersey had S. Q.'s nearly 25 per cent above the I. Q.

This is also the conclusion reached by Meta L. Anderson²⁵ who in her study of special class children in Newark, New Jersey found the following:

In the Montgomery Special School, 70 per cent of the children have I. Q.'s below 70, but only 9 per cent have S. Q.'s below 70. More than one-third of this group are of average social competence and more than one-half are of borderline social competence....The median I. Q. for this group is 66 and the median S. Q. is 86.

In the McKinley Junior High School 2 per cent of the pupils have I. Q.'s below 70 and none have S. Q.'s below 70. Nearly two-thirds of this group have S. Q.'s above 90 and the remaining one-third have S. Q.'s between 70 and 90.

According to Edgar Doll, this conclusion does not hold for feeble-minded children. Doll stated the following: "The correlation between S. A. scores and Binet M. A. scores is $r = .85$ for about four hundred institutional

²⁴Edgar Doll, "The Social Competence of Special Class Children," p. 11.

²⁵Meta Anderson, op. cit., p. 189.

feeble-minded subjects."²⁶

These findings by Miss Anderson and Dr. Doll show that the social quotients are not constant. This justifies the conclusion that it might be possible to get a high positive correlation in another investigation of this type. The inconstancy of the S. Q. also justifies the conclusion that the findings in a similar investigation might be different if a more reliable test were available.

The unreliability of the social maturity scale is seen in the fact that there is no relationship between the teachers' S. Q.'s. The Observer's visits to the homes of the subjects could be a possible cause for the lack of relationship of the two factors in this study.

²⁶Edgar Doll, "The Inheritance of Social Competence," p. 158.

Chapter III

SUMMARY AND CONCLUSIONS

This study was undertaken to determine the relationship between social maturity and intelligence in fifty Negro nursery school children. The Vineland Social Maturity Scale was used to measure the former, and the 1937 revision of the Stanford-Binet was employed to test intelligence.

In order to check the reliability of the writer's scoring of each child by the social maturity test, a teacher in the nursery school also scored each child. The intelligence test was administered by the Director of the school.

From the data secured in this study, the following conclusions are apparent:

1. The correlation between the social quotients obtained by the investigator and the intelligence quotients is .02 which is indicative of very little relationship between the two factors.
2. The correlation of .03 between the social quotients obtained by the investigator and those obtained by the teacher is too low to indicate any great relationship and it means the two people were rating different traits.
3. The correlation between the combined social quotients and the intelligence quotients is .00 which, of course, means no relationship is present between these two series of data.
4. The correlation of .02 between the combined social quotients for the girls and the intelligence quotients has the same meaning as the .00 for the boys; namely, intelligence and social maturity are not related.

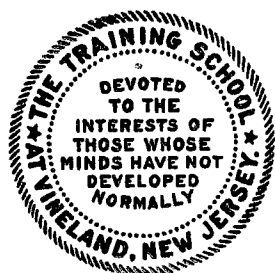
These correlations are very low in each computation. This means that social development, as tested by the Vineland scale, and intelligence, as tested by the 1937 Stanford-Binet, should be considered as separate factors.

Appendix A

THE VINELAND SOCIAL MATURITY SCALE

Revised Condensed
Manual of Directions

By
EDGAR A. DOLL, Ph. D
Director of Research



PUBLICATION OF
THE TRAINING SCHOOL AT VINELAND NEW JERSEY
DEPARTMENT OF RESEARCH
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*"Nothing is brought to perfection at first.
We must be children before we grow men."*

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The Vineland Social Maturity Scale

REVISED CONDENSED MANUAL OF DIRECTIONS

EDGAR A. DOLL, PH.D.

Director of Research, The Training School at Vineland, N. J.

A first formulation of the Vineland Social Maturity Scale was published in April, 1935¹. This was soon followed by a preliminary condensed manual of directions². Other publications have suggested some of the ways in which the Scale may be useful, and have offered preliminary experimental results³. A report of a first standardized revision is now in press⁴. This revised condensed manual has been prepared for use with the revised scale. A more complete manual, elaborating the method and illustrating its application, and monographic reports of the experimental work, are in preparation. This condensed manual should not be considered a complete presentation of the method, but only as a guide to its major aspects.

The Scale provides a definite outline of detailed performances in respect to which children show a progressive capacity for looking after themselves and for participating in those activities which lead toward ultimate independence as adults. The items of the Scale are now arranged in order of increasing average difficulty, and represent progressive maturation in self-help, self-direction, locomotion, occupation, communication and social relations. This maturation in social independence may be taken as a measure of progressive development in social competence.

1. DOLL, EDGAR A. A Genetic Scale of Social Maturity. *The American Journal of Orthopsychiatry* 5:180-88, April, 1935.
2. DOLL, EDGAR A. The Vineland Social Maturity Scale: Manual of Directions. *Training School Bulletin* 32:1-7, 25-32, 48-55, 68-74; March, April, May and June, 1935.
3. DOLL, EDGAR A. The Measurement of Social Competence. *Proceedings of the American Association on Mental Deficiency*, 40:103-126, 1935.
The Clinical Significance of Social Maturity. *Journal of Mental Science*, 34:766-782, October, 1935.
4. DOLL, EDGAR A. Preliminary Standardization of the Vineland Social Maturity Scale. Accepted for publication by *The American Journal of Orthopsychiatry*.

The underlying principles involved in the construction of this scale are much the same as those employed by Binet and Simon for their scale for measuring intelligence. Each item is conceived as representing a general growth in social responsibility which is expressed in some detailed performance as an overt expression of that responsibility. Consequently, the value of the detailed items is to be determined principally by the extent to which they reflect this personal independence in personal activities, in respect to which the detailed performances are otherwise relatively unimportant.

The usefulness of the Scale for practical purposes and as a technique for research in the social sciences will immediately be evident to those interested in social problems. The Scale affords: (a) a standard schedule of normal development which can be used repeatedly for the measurement of growth or change; (b) a measure of individual differences and, consequently, of extreme deviation which may be significant in such problems as mental deficiency, juvenile delinquency, child placement or adoption; (c) a qualitative index of variation in development in abnormal subjects such as the maladjusted, the unstable, the psychopathic, the epileptic; (d) a measure of improvement following special treatment, therapy, and training; (e) a schedule for reviewing developmental histories in the clinical study of retardation, deterioration and rates or stages of growth and decline.

The Scale is also useful in distinguishing between mental retardation with social incompetence (feeble-mindedness) and mental retardation without social incompetence (which is often confused with feeble-mindedness). It also affords assistance in child guidance and child training, by indicating the relative aspects of social competence. It provides another means of evaluating the influence of environment, of cultural status, and the effects of such handicaps as blindness, deafness, or crippling. In short, the social status of the individual is a basic consideration in many scientific studies where human adjustment is a consideration.

Standardization data have now been obtained for ten normal subjects of each sex at each year from birth to thirty years of age, or a total of 620 subjects. This is not a sufficient number of subjects for final standardization, but it may be noted that the calibration of such a scale is not determined by the number of

VINELAND SOCIAL MATURITY SCALE

Name..... Age..... M.A..... Date.....
 Descent..... Sex..... Grade..... I.Q..... Born.....
 Occupation..... Yrs. exp..... Class..... Res.....
 Father's occupation..... Class..... Schooling.....
 Mother's occupation..... Class..... Schooling.....
 Informant..... Relationship..... Recorder.....

Remarks: Basal score.....
 Additional pts.
 Total score.....
 Age equivalent.....
 Social quotient.....
 Informant's est.

Categories	Items	O - I
C	1.	"Crows"; laughs
SHG	2.	Balances head
SHG	3.	Grasps objects within reach
S	4.	Reaches for familiar persons
SHG	5.	Rolls over
SHG	6.	Reaches for nearby objects
O	7.	Occupies self unattended
SHG	8.	Sits unsupported
SHG	9.	Pulls self upright
C	10.	"Talks"; imitates sounds
SHE	11.	Drinks from cup or glass assisted
L	12.	Moves about on floor
SHG	13.	Grasps with thumb and finger
S	14.	Demands personal attention
SHG	15.	Stands alone
SHE	16.	Does not drool
C	17.	Follows simple instructions

I - II

L	18.	Walks about room unattended
O	19.	Marks with pencil or crayon
SHE	20.	Masticates food
SHD	21.	Pulls off socks
O	22.	Transfers objects
SHG	23.	Overcomes simple obstacles
O	24.	Fetches or carries familiar objects
SHE	25.	Drinks from cup or glass unassisted
SHG	26.	Gives up baby carriage
S	27.	Plays with other children
SHE	28.	Eats with spoon
L	29.	Goes about house or yard
SHE	30.	Discriminates edible substances
C	31.	Uses names of familiar objects
L	32.	Walks upstairs unassisted
SHE	33.	Unwraps candy
C	34.	Talks in short sentences

II - III

- SHG 35. Asks to go to toilet
- O 36. Initiates own play activities
- SHD 37. Removes coat or dress
- SHE 38. Eats with fork
- SHE 39. Gets drink unassisted
- SHD 40. Dries own hands
- SHG 41. Avoids simple hazards
- SHD 42. Puts on coat or dress unassisted
- O 43. Cuts with scissors
- C 44. Relates experiences

III - IV

- L 45. Walks downstairs one step per tread
- S 46. Plays cooperatively at kindergarten level
- SHD 47. Buttons coat or dress
- O 48. Helps at little household tasks
- S 49. "Performs" for others
- SHD 50. Washes hands unaided

IV - V

- SHG 51. Cares for self at toilet
- SHD 52. Washes face unassisted
- L 53. Goes about neighborhood unattended
- SHD 54. Dresses self except tying
- O 55. Uses pencil or crayon for drawing
- S 56. Plays competitive exercise games

V - VI

- O 57. Uses skates, sled, wagon
- C 58. Prints simple words
- S 59. Plays simple table games
- SD 60. Is trusted with money
- L 61. Goes to school unattended

VI - VII

- SHE 62. Uses table knife for spreading
- C 63. Uses pencil for writing
- SHD 64. Bathes self assisted
- SHD 65. Goes to bed unassisted

VII - VIII

- SHG 66. Tells time to quarter hour
- SHE 67. Uses table knife for cutting
- S 68. Disavows literal Santa Claus
- S 69. Participates in pre-adolescent play
- SHD 70. Combs or brushes hair

VIII - IX

- O 71. Uses tools or utensils
- O 72. Does routine household tasks
- C 73. Reads on own initiative
- SHD 74. Bathes self unaided

IX - X

- SHE 75. Cares for self at table
- SD 76. Makes minor purchases
- L 77. Goes about home town freely

X - XI

- C 78. Writes occasional short letters
- C 79. Makes telephone calls
- O 80. Does small remunerative work
- C 81. Answers ads; purchases by mail

XI - XII

- O 82. Does simple creative work
- SD 83. Is left to care for self or others
- C 84. Enjoys books, newspapers, magazines

XII - XV

- S 85. Plays difficult games
- SHD 86. Exercises complete care of dress
- SD 87. Buys own clothing accessories
- S 88. Engages in adolescent group activities
- O 89. Performs responsible routine chores

XV - XVIII

- C 90. Communicates by letter
- C 91. Follows current events
- L 92. Goes to nearby places alone
- SD 93. Goes out unsupervised daytime
- SD 94. Has own spending money
- SD 95. Buys all own clothing

XVIII - XX

- L 96. Goes to distant points alone
- SD 97. Looks after own health
- O 98. Has a job or continues schooling
- SD 99. Goes out nights unrestricted
- SD 100. Controls own major expenditures
- SD 101. Assumes personal responsibility

XX - XXV

- SD 102. Uses money providently
- S 103. Assumes responsibilities beyond own needs
- S 104. Contributes to social welfare
- SD 105. Provides for future

XXV +

- O 106. Performs skilled work
- O 107. Engages in beneficial recreation
- O 108. Systematizes own work
- S 109. Inspires confidence
- S 110. Promotes civic progress
- O 111. Supervises occupational pursuits
- SD 112. Purchases for others
- O 113. Directs or manages affairs of others
- O 114. Performs expert or professional work
- S 115. Shares community responsibility
- O 116. Creates own opportunities
- S 117. Advances general welfare

subjects at any one age alone, but rather by the succession of ages over a range of years. The stability of such a standardization is therefore determined in a large measure by the internal consistency of the Scale as a whole. The stability of this standardization was increased by selecting these normal subjects by social status as indicated by paternal occupation. This provides a representative sampling of known values and controlled distribution.

By employing the Thomson method of calculating average age norms for items, we have been able to arrange the successive items of the Scale in a precise order of progressive difficulty of known statistical values. The standardized revision also provides new age scores, reformulation of items, substitution of new items for those found unsatisfactory, and clarification of definition of items.

THE SCALE

The revised scale is printed herewith. Each item of the Scale has been given a categorical designation (see first two paragraphs under "General Instructions," p. 7) which is indicated by the following letters:

S H G—self-help general	O—occupation
S H E—self-help eating	C—communication
S H D—self-help dressing	L—locomotion
S D—self-direction	S—socialization

The definition for each item is given in these categorical arrangements at the end of this manual.

The items of the Scale are arranged in order of average age norms and are numbered in arithmetical succession from 1 to 117. They have also been separated in year groups according to the average age scores obtained for the Scale as a whole. The method combines both the year-scale and point-scale principles. The arrangement facilitates the interpretation of total scores in terms of year values from the blank itself without the use of conversion tables as employed in the earlier manual for the original scale.

This revision and standardization of the earlier scale has produced no major changes in the earlier form, but has provided rather a refinement and improvement in detail. The revised age scores show significant changes for ages X to XV years.

The most serious modifications in item formulation are at the adult level. No attempt is made here to present the experimental and theoretical material on which this scale is constructed. This manual of instructions is a condensed guide and does not pretend to afford a complete key to the method. We hope soon to offer a more detailed manual with elaboration and illustration of definition, procedure and interpretation.

GENERAL INSTRUCTIONS

The central purpose of each item of the Scale is to represent some particular aspect of the ability to look after one's own practical needs. The specific items aim to sample such various aspects of social ability as self-sufficiency, occupational activities, communication, self-direction, and social participation, and to reflect progressive freedom from need of assistance, direction, or supervision on the part of others. The items aim to avoid measuring intelligence, skill, achievement, personality, emotionality, and the specific results of environmental opportunity, training, incentive, habit, and so on, as such. The influence of such factors is expressed in terms of their composite capitalization for socially independent behavior.

To facilitate administration of the Scale, the detailed items are roughly grouped according to general similarity of content. However, each item is to be understood as a measure of general social maturation. By grouping similar items in categorical hierarchies the examiner is able to apply the Scale with more facility, thus quickly appraising the position of the subject examined in respect to each of these major aspects of social competence. This grouping is for purposes of convenience only, and the examiner should not hesitate to employ such an order as may seem to him most practicable in examining a given individual. The examiner is also expected to exercise discretion as to the order to be followed for the major groups themselves, since this also will be influenced by the particular circumstances surrounding each examination as well as by the range of the Scale that will apply to a given subject.

Each item of the Scale has a growth span of several years from which an average age may be derived as a standard for purposes of scaling, the curve as a whole reflecting individual differences in development. The results from the sum of items

passed by a given subject are then reduced to age scores according to the average performance of normative life-age groups. These average scores are indicated by separating the items into year groups as total scores. Age scores may be calculated from total scores by interpolation as indicated below. Sex differences in item difficulty and in average age scores are so small as to be negligible for practical purposes.

It has proved impracticable to present here the detailed instructions with sufficient completeness to provide for all contingencies. The item definitions serve to indicate the central idea of each item, which is elaborated in detail by interview. This places on the examiner a definite responsibility for sensing the central theme of each item so that he may decide whether or not the particular manner in which that item is performed should or should not receive credit, or which type of credit.

The Scale is not a rating scale and scores are not to be based on mere opinions. The informant does not make the scoring judgment. This is done by the examiner after obtaining from the informant as much detail as practicable regarding the behavioristic facts which reveal the manner and extent of the subject's actual performance on each item. This is particularly important where lack of opportunity or other limiting circumstances seriously affect such performance. If opinions are submitted by the informant in lieu of factual information, the factual basis for such opinions should be reported. These requirements make it clear that the Scale cannot be used with precision except by duly qualified examiners who will devote at least as much care to mastering the technique as that required for administering the Binet Scale. Examiners should not be misled by the apparent simplicity or homeliness of the method. All details presented herewith have been carefully considered and these details may not be ignored if the Scale is to be used effectively.

The items of the Scale are to be scored on the basis of information obtained from someone intimately familiar with the person scored, such as the mother, the father, a close relative, guardian, attendant, or supervisor. The subject examined (the S) need not be present or observed, since the informant acts as proxy for the S. As will be noted later, the S may be used under certain conditions as his own informant.

In proceeding with the examination, information is first sought regarding the S's life age, schooling, general ability, occupation, special handicaps, and other orienting data. Other general information should also be sought bearing on the general social status of the S as indicated by father's usual occupation, general environment, and the like, so as to facilitate examining, avoid embarrassment, and allow for limiting circumstances in evaluating the information obtained.

The recorder, retaining the scoring sheet himself and not supplying one to the informant, begins by questioning the informant well below the anticipated final score in each serial group of items, as assumed from age and general presumption of the subject's ability. The recorder completes one item at a time, but notes incidental information relative to other items. Kindred items of progressive difficulty as provided in the grouping of items are to be followed through as in serial Binet testing, thus "raking" the Scale throughout the effective range rather than following all items in the numerical sequence of the scoring sheet. The examiner will use his own judgment in adapting the order of items within groups and the groups as wholes according to circumstances.

In obtaining this information the recorder is expected to quiz the informant in a sympathetic rather than a belligerent manner, avoiding naive credulity as well as open skepticism, encouraging spontaneous description and eliciting detailed facts as to the specific limits of the S's actual performance by supplementary questions appropriate to the issues involved. It is difficult in this condensed guide to elaborate the technique of interview. This will be done in the more complete manual to be published later. It is important to avoid asking whether the S *can* do so-and-so, but rather *does* he usually or habitually do so. These answers are then checked by detailed questioning until the examiner is able to score the item as a whole. It is also important to avoid leading questions and to follow up all general answers with detailed questions. Thus the examiner asks *to what extent* does the S feed himself, or *how much* can the S do for himself in dressing, or *in what ways* does the S help around the house, or *what kind of work* does the S perform. In this way the examiner may score several items at once in the same category on the basis of the degree of accomplishment in a series of related items. *There is no substitute*

for finding out just what the S actually and habitually does in respect to each item.

Under favorable conditions the Scale may be administered with the subject of the examination acting as his own informant. This has been found practicable with normal children as young as five years of age, and with subnormal subjects with Binet mental age as low as five years. Results obtained in this way tend to be slightly higher on the average, but are in some cases lower, than those obtained from independent informants. Such results should be scrutinized carefully in relation to the S's rapport as indicated by cooperation, honesty, candor and insight. Often the subject is a *better* informant than some one else. However, modesty, self-deprecation, undue optimism, lack of auto-criticism, and the like may render self-informing somewhat misleading. Some check on this may be had by reviewing a few items through an independent informant for accuracy, or by checking a few items by observation or actual performance. (In the latter case the examiner would have to infer whether such performance is likely to be usual or habitual.)

In general we have found that actual misrepresentation of fact, either intentional or unintentional, by the S or independent informants does not present a genuine difficulty. A more serious hazard is the failure of the examiner to establish with sufficient detail the actual basis for passing judgment on each item. The interview method, the emphasis on actual and habitual performance, and the internal consistency and progression of items all serve as controls. The chief advantage of the use of independent informants is the assumed freedom from overstatement or understatement of fact. The reliability of the method under these conditions has been examined experimentally and statistically, and found satisfactory.

SCORING

The scoring instructions are designed to elaborate and clarify the meaning of the detailed items. The recorder must use his own discretion as to the variations in circumstances that satisfy the central requirement of each item. This involves thoughtful judgment and care so as not to modify critical elements in scoring, but only to substitute obvious equivalents. The critical basis for judgment should be briefly recorded.

Actual scoring is as follows:

(a) Score item plus (+) if it seems clear that the essentials for that item are satisfied and habitually performed without need of undue urging or artificial incentive, or with only occasional assistance in case of special circumstances. Note that some successful performance may be transitory, evanescent, outgrown, or temporarily discontinued. Where formerly successful performance is no longer habitual, the item is scored plus provided the recorder is convinced that the performance could easily be re-established if desirable, or provided that the item is superseded by some obviously higher degree of similar behavior.

Plus credit may be assumed for all items below that succession of pluses which provides the basal score for the Scale as a whole. For such basal score at least two consecutive pluses are desirable within each category appropriate to the range of the examination. The highest continuous plus score for all items is considered the basal score, allowance being made for lack of opportunity, as noted below.

(b) Score "+F" those items which the subject does not perform at the time of examination because of special restraint or lack of opportunity, but which he formerly *did* perform successfully when no restraints were imposed or where the opportunity was present. Such scores are to receive full credit.

F-score credit is to be allowed where previously successful performance is interfered with by temporary ill health, by institutional commitment, or by other critical circumstances. Credit is not allowed for previously successful performance which has been lost as a result of senescence or relatively permanent mental or physical impairment. Credit is not allowed where restrictions have proved advisable because of the unfavorable consequences already experienced in the absence of such restrictions.

(c) Score "+N.O." (No Opportunity) those items which the subject has not performed and does not now perform because of special restraint or lack of environmental opportunity, such as parental solicitude, adult domination, attendance at high school or college, institutional residence, or other grossly limiting circumstances, but which the subject would presumably perform habitually or could quickly learn to perform, if such limitations to behavior were removed. Such scores do not apply when performance is or has been limited by physical or mental disability.

Plus N.O. scores receive full credit within the range of the otherwise continuous plus scores. They receive no credit within the range of the otherwise continuous minus scores. They

receive half-credit within the intermediate range. If the +N.O. score is the last of the otherwise continuous plus scores, or immediately precedes the otherwise continuous minus scores, it is counted in the intermediate range and receives half-credit.

This system of crediting +N.O. scores is a compromise allowance for presumptive performance in the absence of reasonable opportunity for such performance in fact. It is frankly an expedient to avoid penalizing a subject whose performance on a given item is artificially restricted. The net effect of such scores will not affect the total score materially in most instances (except in some institutional environments). The effect that such scores may produce can be allowed for in interpreting the results in a given case or in a given group according to the limiting circumstances.

Care must be taken not to be ingenuous or too generous in estimating limitations of opportunity or to confuse such limitations with actual immaturity, since the fundamental purpose of the Scale is to measure the extent to which the person progressively dominates his environment and creates, demands, or justifies his own freedom of action as age increases. This is the principal evidence of maturing social responsibility, and care must be taken not to discount it naively. Such items, therefore, should be viewed skeptically as well as sympathetically.

It is impracticable to provide alternate items in cases of limited opportunity, as this would require an alternate for each item and these alternates might be subject to the same difficulties as the items they are intended to replace. It also seems inadvisable to omit such items in a given case and provide an adjusted score on the basis of the number of items actually used. As a matter of fact, these items provide specially significant information for evaluating individual social competence. For purposes of guidance, training or treatment, these items afford suggestions for increasing social maturity. It is important, however, that the recorder be free from prejudices in assuming that restraint or lack of opportunity is not *caused by* the social irresponsibility of the person scored, as for example in relation to ordinary environmental dangers where the successful avoidance of ordinary hazards is itself the measure of social responsibility. Care should be exercised also regarding the limitations to behavior imposed by generally accepted social conventions, especially such as vary with locality or the times.

Actual use of the Scale within a few institutions for the mentally and physically handicapped has demonstrated the practicability of the use of +N.O. scores in a restricted environment, and suggests that alternate items or scales are not necessary for such groups.

(d) Score plus-minus (\pm) those items which are in transitional or emergent state, that is, which are occasionally but not ordinarily performed with full success. Such performance should be more than cursory or fitful. These scores are to be given half-credit in the final summation for total score.

Borderline scores are to be expected in the borderline range. They will reflect: (a) timidity, indifference, low incentive, dependency, lack of self-assertion, and the like on the part of the subject; (b) solicitude, displeasure, or domination on the part of parents or elders; (c) special hazards in the particular environment, and so on.

Subjects will be encountered who *can* perform or who presumably could learn quickly to perform a given item, but who for various reasons prefer not to do so, especially in cases where the subject

enjoys a certain degree of sentimental dependence or assistance. In such instances the examiner must decide whether the item is to receive full credit as a genuine capability not always exercised, or whether the ability is only emergent. In the former case the item is to be scored full credit; in the latter case half-credit. Judgment is required to decide whether such assistance as may be given is really due to sentiment, solicitude, or expediency, or whether such assistance conceals a genuine lack of performance.

(e) Score minus (—) those items in respect to which the person scored has not yet succeeded at all, or only rarely, or only under extreme pressure or unusual incentive. Such scores receive no credit. A complete record should show at least two consecutive minus scores in each category appropriate to the range of application.

Score "—N.O." those items respecting which special restraints or lack of opportunity may be noted, but which presumably would not or could not be performed if the opportunity were provided. This scoring does not affect the final score, but serves to indicate that the disability is in the subject and not due to some other cause.

(f) The total score is the sum of scores as provided above.

This is obtained by adding to the basal score (the highest of all the continuous pluses) the additional scattered credits beyond the basal score and expressing this sum as a total number of items passed (counting two half-credits as one item).

This total score is then converted to an age score by interpolation according to the year-score values on the record sheet. For this purpose the item numbers may be used to represent total raw scores. The total score expressed as an item number may then be reduced to a fractional year value to the nearest first decimal. Thus a score of 61 means the top score of year V-VI, which would be 5.99, or 6.0. A score of 62 would mean one-fourth of a year past 6.0, which is 6.25, or 6.3. A score of 69 would mean four-fifths of a year past 7.0, which is 7.8. A score of 83 would mean two-thirds of a year past 11.0, which is 11.67, or 11.7. If the interval represents more than one year, this would be calculated proportionately. Thus a score of 88 represents four-fifths of the XII-XV year interval, or $12.0 + (4/5 \times 3)$, or $12.0 + 2.4$, or 14.4.

The general rule for interpolation is therefore as follows:

(1) from actual score subtract the top score of the year group preceding that in which the actual score is found; (2) express this remainder as a fractional part of the year group in which the total score is found (based on the number of items in that group and the year-range of the group); (3) add this value to the top year value of the lower limiting group.

EXAMPLE

Male, life age 14.9, Binet age 7.2, Binet IQ 51.

Items:	55-59	60	61-63	64	65	66	67	68
Scores:	+ $\frac{1}{2}$	+N.O.	+ $\frac{1}{3}$	+N.O.	- $\frac{1}{4}$	+ $\frac{1}{5}$	$\pm\frac{1}{6}$	+ $\frac{1}{7}$
Credit:	59	1	3	.5	0	1	.5	1

Items:	69	70	71	72	73	74-76	77	78-86
Scores:	+F	\pm	-	+ $\frac{1}{2}$	-	-	+N.O.	-
Credit:	1	.5	0	1	0	0	0	0

Basal score 63, additional credits 5.5, total score 68.5.

Age-score (SA) = $7.0 + .7 = 7.7$ years.

This is obtained as follows: (1) find in the blank the nearest full year score (in this case 65) which is below the total given social score (68.5); (2) note the age corresponding to this score (6.99, or 7.0); (3) subtract the lower limiting score (65) from the actual score (68.5); (4) divide this difference (3.5) by the difference between the lower limiting full year score (65) and the next higher full year score (70) which is the limiting score interval (5); (5) multiply this result ($3.5 \div 5 = .7$) by the corresponding age interval ($8.0 - 7.0 = 1$); (6) add this result (.7) to the lower limiting age (7.0), thus obtaining the interpolated age score (7.7).

Social quotient (SQ) = 7.7 (SA) \div 14.9 (LA) = 52 .

The average age scores increase fairly consistently up to 25 years. After 25 years the average age scores show some selective variability but no steady rise. Twenty-five years, or a total score of 105, is therefore considered the average adult score for life ages above 25 years and becomes the highest divisor for calculating quotient ratios. Since the average is approximately the midpoint of the distribution, it is evident that about half of the adult scores (for ages 25+) are above 105, and these high scores can be expressed as superior adult percentile standing. Our data show a median adult score (50-percentile) at 106, with successive deciles increasing by 1 point each to 90-percentile for a score of 110. By interpolation these decile scores are found to increase by 1-year values if it is desired to express them as theoretical age scores.

We may therefore for certain purposes set up the following table of scores for rough interpretation of scores above 105.

SCORE	PERCENTILE VALUE	THEORETICAL AGE VALUE
106	50	25
107	60	26
108	70	27
109	80	28
110	90	29
110+	90+	29+

This is only a suggested interpretation and should not be taken too literally.

Age scores may be converted to ratios or quotients. The simplest procedure is to divide the subject's age score by his life age and drop the decimal, or $SQ = 100 (SA \div LA)$. This is the same procedure as is used for converting Binet mental-age scores to IQ's. Our preliminary results indicate that our SA's are statistically and methodologically comparable to Binet MA's, and our SQ's to Binet IQ's. However, it should be noted that the average adult Binet MA is usually taken at 14 years (or by some at 15 or 16), whereas the average adult SA is taken at 25 years, and this influences the comparison of IQ's and SQ's after 14 years. We have noted elsewhere (see footnote 3, p. 1) that SA's among mentally deficient subjects tend to be slightly higher than Binet MA's, and SQ's somewhat lower than Binet IQ's (after 15 years). Our data are too limited to provide for accurate percentile interpretation. Other methods of interpretation will be discussed in later reports.

The final score is to be *interpreted* with due regard for special limiting circumstances such as crippling, ill health, sensory defects, adult domination, and other barriers to opportunity. Limitations imposed by intelligence level, emotional attitudes, social conditioning, disposition, and the like, are presumed to be reflected in the Scale itself and should not be otherwise allowed for. In general, exceptional circumstances should be recorded under "Remarks" and allowed for in the interpretation of the scores, while the scores themselves should be as factually objective as possible.

DETAILED INSTRUCTIONS

SELF-HELP

General

2. Balances head.
Holds up head voluntarily (unassisted) with trunk erect for indefinite period (about a minute).
3. Grasps objects within reach.
Picks up or takes objects within arm's length.
5. Rolls over.
Lying prone, rolls over on back, or vice versa, unassisted.
6. Reaches for nearby objects.
Attempts to obtain objects nearby but beyond reach.
8. Sits unsupported.
Sits upright on hard, flat surface without support for indefinite period (about a minute). Balance may be unsteady, but body does not fall from erect spinal posture.
9. Pulls self upright.
Comes to standing position holding to some object (not a person), pulling self upright.
13. Grasps with thumb and finger.
Opposes thumb and finger in grasping or picking up as opposed to grasping with whole fist and palm.
15. Stands alone.
Stands unsupported on hard, flat surface, not holding to object or person, for indefinite period (about a minute). Balance may be unsteady and foot movements may be present, but full upright posture is maintained.
23. Overcomes simple obstacles.
Opens closed doors; climbs up on chairs; uses stool for reaching; uses stick as implement; removes simple impediments; uses basket or receptacle for carrying things.
26. Gives up baby carriage.
No longer rides in perambulator. Walks or uses go-cart when going out.

35. Asks to go to toilet.
By actions or speech expresses to someone desire to go to toilet and rarely has daytime toilet "accidents."
May be assisted at toilet.
41. Avoids simple hazards.
Comes in out of the rain, literally and figuratively. Shows some caution regarding strangers; is careful as regards falling on stairs or from high places; avoids dangers of such articles as matches, sharp utensils, glassware; keeps out of street; is cautious with animals.
51. Cares for self at toilet.
Goes to toilet alone and without help. Unfastens and fastens own clothing (may require help with buttoning back buttons) and performs other necessary operations. No daytime accidents.
66. Tells time to quarter hour.
Reads ordinary clock or watch correctly to nearest quarter hour and actually uses timepieces for practical purposes.

SELF-HELP

Eating

11. Drinks from cup or glass assisted.
Uses cup or glass for drinking, assisted by someone holding or helping to hold cup or glass, and drinks without much spilling.
16. Does not drool.
Has established control of saliva so that mouth or chin does not ordinarily require wiping except when eating.
20. Masticates food.
Chews solid or semi-solid foods before swallowing.
25. Drinks from cup or glass unassisted.
Uses cup or glass, unassisted, for drinking, by grasping handle or by using either or both hands on sides of glass and without serious spilling.
28. Eats with spoon.
Uses spoon at table or high chair for eating from bowl, cup or plate, and does so without help and without appreciable spilling.

30. Discriminates edible substances.
Avoids eating trash, and readily discriminates between ordinary substances suitable or unsuitable for eating without necessity of sampling them. May bite hard objects but does not require watching in this respect.
33. Unwraps candy.
Given candy or food enclosed in wrapping, removes wrapping without suggestion or help before eating.
38. Eats with fork.
Uses fork without much spilling for eating solid food which does not require cutting.
39. Gets drink unassisted.
When desiring drink is able to obtain one under ordinary circumstances in familiar surroundings without help, obtaining cup or glass if accessible, turning tap on and off, without serious hazard or messing.
62. Uses table knife for spreading.
Uses table knife under ordinary circumstances for spreading bread with butter or jam.
67. Uses table knife for cutting.
Uses knife at table for cutting meat. May be assisted occasionally with tough or difficult meat, such as meat on bones, or poultry.
75. Cares for self at table.
Looks after own needs at table; helps self according to needs; ordinarily prepares such items as baked potatoes, difficult meat, boiled eggs, etc.

SELF-HELP

Dressing

21. Pulls off socks.
Removes socks, stockings, or shoes unassisted if unfastened, as an act of undressing and not merely as a means of play.
37. Removes coat or dress.
Removes own coat, dress or overcoat without assistance, when same is unfastened.
40. Dries own hands.
Dries own hands acceptably without help. Hands may be washed for him.

42. Puts on coat or dress unassisted.
Puts on own coat, dress or overcoat without help, but need not button.
47. Buttons coat or dress.
Puts on own coat, dress or overcoat and buttons same without help.
50. Washes hands unaided.
Washes own hands acceptably without help and dries same without soiling towel.
52. Washes face unassisted.
Washes own face (except ears) acceptably and dries same without help.
54. Dresses self except tying.
Dresses self except for tying laces, ribbons, or ties. Does own ordinary buttoning. Clothing is laid out or designated. Receives help with muffler, rubbers or overshoes in dressing for outdoors, and with specially difficult or close-fitting clothes, such as slip-over and all-over garments.
64. Bathes self assisted.
Takes bath with supervision. May be assisted in preparing bath, washing and drying hair, and "touching up."
65. Goes to bed unassisted.
Performs bedtime operations without help; goes to room alone, undresses, attends to toilet, turns out light, etc., according to family routine. May be accompanied or "tucked in" as a matter of sentiment, but requires no actual assistance or company.
70. Combs or brushes hair.
Brushes or combs hair acceptably without help or "going over," when dressing, going out, or receiving company.
74. Bathes self unaided.
Takes bath acceptably without help; undresses; prepares tub or shower. Washes and dries self without need of "touching up," not including washing and drying hair.

86. Exercises complete care of dress.
Requires only rare help in care of person, including washing and drying hair, care of nails, shaving (if bearded), proper selection of clothing according to occasion and weather. Ties necktie, ribbons, or sashes.

LOCOMOTION

12. Moves about on floor.
Gets around on floor by creeping or crawling, but may be watched while doing so.
18. Walks about room unattended.
Walks about room, not merely as motor act but as evidence of increasing personal responsibility. May require occasional admonition or watching.
29. Goes about house or yard.
Goes about house or yard with only occasional oversight as to whereabouts or actions, and causes little concern in doing so.
32. Walks upstairs unassisted.
Goes upstairs without help; walks rather than creeps. May hold to banister or wall (not person), and may take two steps per tread.
45. Walks downstairs one step per tread.
Walks downstairs unassisted, one step per tread.
53. Goes about neighborhood unattended.
Goes about immediate neighborhood unsupervised. May be restricted as to areas and "deadlines," and knowledge of whereabouts or activities may be required, but is substantially "on his own" within these limits.
61. Goes to school unattended.
Leaves for school or other familiar place outside of immediate neighborhood "on his own." May go with friends, but no one is in direct charge of him.
77. Goes about home town freely.
Goes about home town alone or with friends, outside own immediate neighborhood to other than specific points. May be restricted as to areas or "deadlines," but these are more remote than nearby neighborhood.

92. Goes to nearby places alone.

Goes outside the limits of home town (as defined in Item 77) and is personally responsible for his own arrangements in so doing. Is "on his own" and not merely following explicit directions, or merely going from known point to known point and return. Distance traversed need not be great, but areas are relatively unfamiliar.

96. Goes to distant points alone.

Goes to strange or relatively remote towns or places unaccompanied (not in charge of someone) and makes own arrangement for same, without specific instructions. Is cautious of ordinary dangers and meets ordinary emergencies successfully in so doing.

OCCUPATION

7. Occupies self unattended.

Plays with rattle or simple objects, or engages in other simple activities, for quarter hour or longer without need of attention.

19. Marks with pencil or crayon.

Amuses self with crayon or pencil for brief periods; marks up and down, side to side, or with circling motion without breaking point or tearing paper. Does so spontaneously or on request as a means of self-occupation.

22. Transfers objects.

Pours from one vessel to another without messing; removes, transfers, replaces objects in somewhat purposeful manner; arranges objects in some pattern or order.

24. Fetches or carries familiar objects.

Performs useful errands on request, such as taking or bringing named objects to or from nearby places, or carrying simple messages to or from nearby persons.

36. Initiates own play activities.

Occupies self at play or similar activities on own initiative, or at simple suggestion, such as drawing or coloring with pencil or crayon, building with blocks, dressing dolls, looking at books or pictures. May do so with others, but requires no "looking after."

43. Cuts with scissors.
Uses blunt scissors in cutting paper or cloth. Does so safely and is not destructive, but may be supervised.
48. Helps at little household tasks.
"Helps" in small ways about the house, such as running errands, picking up things, helping to set or clear table, feeding pets, dusting.
55. Uses pencil or crayon for drawing.
Draws with pencil or crayon and produces simple but recognizable forms such as man, house, tree, animal, landscape. Credit detailed or differential coloring.
57. Uses skates, sled, wagon.
Takes care of self unsupervised outside of own yard in use of skates, sled, wagon, velocipede, skooter, and similar play vehicles involving some hazard.
71. Uses tools or utensils.
Makes some practical use of simple tools or utensils, such as hammer, saw, screw driver, household or sewing utensils, garden tools.
72. Does routine household tasks.
Helps effectively at simple tasks about house which recur routinely and for which some continuous responsibility is assumed, such as dusting, arranging, cleaning, washing dishes, setting or clearing table, making bed.
80. Does small remunerative work.
Performs occasional or intermittent work on own initiative about house or neighborhood for which small sums are paid or which merit payment, such as odd jobs, housework, helping in care of children, sewing, selling magazines, carrying newspapers.
82. Does simple creative work.
Makes useful articles or does simple repair or productive work; cooks, bakes, or sews in small way; does simple gardening; raises pets; writes simple stories or poems; produces simple paintings or drawings.
89. Performs responsible routine chores.
Is responsible for performing recurrent and variable work such as family chores, waiting table, assisting in housework, caring for garden, cleaning car, washing windows.

98. Has a job or continues schooling.
Is gainfully employed at such occupations as factory operative, servant, farmhand, common laborer, barber, artisan helper, housewife, (allowance being made for unemployment due to special circumstances). Or continues schooling beyond high school.
106. Performs skilled work.
Is employed at journeyman level of skilled (technical or clerical) or supervisory occupations, such as office clerk, artisan, nurse, farmer, small merchant, foreman, household manager. Or continues schooling at upper-class college level.
107. Engages in beneficial recreation.
Makes profitable use of leisure time for safeguarding or improving mental and physical welfare through reading, games and sports, hobbies, gardening, music, art, theatres. Mere passive recreations, "low-brow" amusements, or time-killing pursuits not to be credited.
108. Systematizes own work.
Works on own initiative according to system designed to promote more effective use of abilities and opportunities. Makes program of work to allow for contingencies, and follows it with view to increasing quantity, quality, and variety of work. Uses new devices and methods to increase effectiveness of work.
111. Supervises occupational pursuits.
Manages own business above small merchant level, or holds position of minor executive capacity higher than foreman grade in routine occupation.
113. Directs or manages affairs of others.
Holds superior executive or technical supervisory position or employs several workers on own account. Plans or organizes work of others in a major way.
114. Performs expert or professional work.
Performs highly skilled or executive work above journeyman level or pursues professional, literary or artistic career of high merit.

116. Creates own opportunities.

Dominates environment or "runs own show"; designs ways of doing things; contributes ideas; departs from accepted routine; succeeds in developing new discoveries, improved operation, more efficient management. Sustains such creative or organizing activities over appreciable period of years.

COMMUNICATION

1. "Crows"; laughs.
Vocalizes inarticulately (other than crying or fretting). Spontaneously gurgles or coos with evident animation or satisfaction. Laughs spontaneously or when stimulated.
10. "Talks"; imitates sounds.
Babbles, or uses inarticulate speech which reveals apparent imitative or expressive attempts at words as something more than mere pleasurable vocalization.
17. Follows simple instructions.
Comes when called; goes short distances to particular points as directed; points to particular objects in pictures when asked; performs baby game pantomime on demand—in general, cooperates on verbal request in very simple activities.
31. Uses names of familiar objects.
Uses names of several familiar objects (not including persons) for practical purposes; not merely tells the names of such objects when presented, but calls for or refers to them by name spontaneously. Names may be substitutes for or corruptions of dictionary words, but should be more than merely recognizable sounds.
34. Talks in short sentences.
Uses short sentences or phrases, or subject-object combinations, with vocabulary of about 25 words or more. Speech is practically useful within those limits, and not mere "parrot talk."
44. Relates experiences.
Gives simple accounts of experiences or tells stories (unprompted) with sequential and coherent content and relevant detail. Vocabulary and language forms not so important as the continuity of the account.

58. Prints simple words.
Prints or writes legibly first name or a few familiar words of three or four letters not using copy. Does so either spontaneously or from dictation. Correct spelling not essential.
63. Uses pencil for writing.
Writes (not prints) legibly with pencil a dozen or more simple words with correct spelling. Does so on own initiative or from dictation, but not from copy.
73. Reads on own initiative.
Makes independent and effective use of simple reading material (at about 4th grade level), such as comic strips, movie titles, simple stories, notes, simple instructions, elementary news items, for own entertainment or information.
78. Writes occasional short letters.
Now and then writes brief letters to friends or relatives on own initiative or following mild suggestion, and does so without help except for spelling of unusual words and supplying unfamiliar addresses. Addresses envelopes and provides for mailing same.
79. Makes telephone calls.
Uses local telephone for practical purposes, that is, looks up numbers, places calls and carries on purposive conversation effectively, not including long-distance calls, and not including automatic or dial phones except where these are in common use.
81. Answers ads; purchases by mail.
Responds to magazine, radio, or other advertising by mailing coupons, requesting samples, sending for literature, ordering from catalogs.
84. Enjoys books, newspapers, magazines.
Reads for practical information or personal enjoyment, such as story or news columns in papers, magazine stories, library books, stories of adventure or romance.
90. Communicates by letter.
Writes business or social letters which are more than perfunctory and which require communication of serious information, exchange of significant news, giving or acknowledging of instructions.

91. Follows current events.

Discusses general news, sports, sensational events, and follows such matters with some continuity.

SELF-DIRECTION

60. Is trusted with money.

Is responsible with small sums of money when sent to make payments or explicit purchases. Is careful of same and uses as directed. Ability to make change not required.

76. Makes minor purchases.

Buys useful articles, exercises some choice or discretion in so doing, and is responsible for safety of articles, money and correct change. Does so independently, or can be relied on to follow explicit directions.

83. Is left to care for self or others.

Is sometimes left alone or on own responsibility for hour or more at home or at work and is successful in looking after own immediate needs or those of others who may be left in his care.

87. Buys own clothing accessories.

Selects and purchases minor articles of personal clothing with regard for appropriateness, cost, and fit, such as ribbons, ties, underwear, linen, shoes, etc., not including suits, dresses, coats, hats. Authority and money or credit may be supplied by elders.

93. Goes out unsupervised daytime.

Leaves home during daytime without "distant supervision," and is personally responsible for movements without accounting for same in advance. In so doing reveals discreet behavior.

94. Has own spending money.

Has appreciable spending money (dollar or more per week, allowance or earned) and uses same with reasonable discretion for significant personal needs rather than for mere immediate enjoyment.

95. Buys all own clothing.

Usually selects and purchases own clothing and effects, including dresses, suits, overcoats, hats. May be assisted or advised, but makes own final decisions and arranges payment, although money or credit may be supplied rather than earned.

97. Looks after own health.

Exercises personal discretion in safe-guarding own health with due regard for ordinary rules of hygiene, contagious or infectious diseases, acute illnesses and accidents, caring for self in minor ailments and obtaining professional assistance as needed.

99. Goes out nights unrestricted.

Is responsible for own actions after dark without accounting for same in advance, and does not get into trouble. Is free to come and go at night, but may account for absence before or after as a courtesy or formality. May be required home by stated hour.

100. Controls own major expenditures.

Exercises own discretion in providing for major expenses from allowances, earnings, or income, with only general advice from others as to use of money.

101. Assumes personal responsibility.

Directs own social affairs, but is considerate of the welfare of others in so doing. Exercises discretion (judgment and foresight) in personal activities.

102. Uses money providently.

Lives within income, meets proper financial obligations promptly, avoids waste and extravagance, within a standard of living prudently related to income, resources, and obligations. Expenditures are for serious rather than frivolous purposes.

105. Provides for future.

Retains economic independence (allowance being made for emergencies outside own control). Anticipates future needs or advantages by setting aside significant part of income or resources in savings, insurance, investment, etc. Credit purchase of own home, special home furnishings, provision for higher education of children, and such investment expenditures as have cash value or which anticipate future welfare as opposed to immediate needs or pleasures. Defers immediate satisfaction for remote benefits. Scale of living allows surplus for emergencies.

112. Purchases for others.

Makes or approves major purchases outside of own or dependents' household needs as an agent for others, involving responsibility and critical choice with mature discretion as to appropriateness and cost.

SOCIALIZATION

4. Reaches for familiar persons.

"Asks to be taken," or shows desire for being picked up or held by mother, father, nurse or other familiar persons, or otherwise clearly indicates recognition.

14. Demands personal attention.

Indicates desire to be "talked" to, or otherwise to be engaged in relation to some other person, such as directing interest toward self or own activities, beyond mere handling or care for physical needs.

27. Plays with other children.

Plays independently in company of others of approximately same age or social station without creating antagonism. Activity is individual rather than cooperative, but he "gets along" with other children.

46. Plays cooperatively at kindergarten level.

Participates in coordinated group activity, such as kindergarten circle games, imaginative group play, simple tea parties, or activities where mutual or reciprocal action is required.

49. "Performs" for others.

Does little stunts imaginatively or for entertainment of others, such as reciting, singing, dancing, in manner sufficiently creditable to be more than merely "cute."

56. Plays competitive exercise games.

Engages in competitive active play in small groups of three or four of like age, e.g., tag, hide and seek, hopscotch, jumping rope, marbles, tops, statue.

59. Plays simple table games.

Plays table games with others requiring taking turns, observing rules, appreciating goals, and does so without undue dissension (such as Tiddledewinks, Old Maid, Parchesi, Dominoes, Checkers).

68. Disavows literal Santa Claus.
Rejects anthropomorphic concept of Santa Claus intellectually, but may retain emotional or symbolic concept; also rejects such other animistic concepts as fairies, Easter Rabbit, and personification of objects or events.
69. Participates in pre-adolescent play.
Boys: Engages in group cooperative play not requiring definite skills and with only loose rules, such as unorganized baseball, football, basketball, hockey; "range" games, such as follow-leader, stillwater, fox and geese; takes hikes or bicycle rides.
Girls: Engages in dramatic play symbolizing domestic or social situations, such as playing house, school, doctor-nurse, store.
(Note sex differentiation in play at this stage and shift in girls' play to more sedentary type. However, credit item regardless of sex if this differentiation has not yet been established.)
85. Plays difficult games.
Participates in relatively complex or skilled games and sports, as Hoyle card games, baseball, basketball, tennis, pool. Understands rules and methods of scoring.
88. Engages in adolescent group activities.
Is an active member of a cooperative group, athletic team, club, social or literary organization. Plans or participates in dances, parties, trips, outdoor sports, etc., in groups representing a social set of similar ages and interests, without adult leadership.
103. Assumes responsibilities beyond own needs.
Contributes to support of others; "is a good neighbor;" shares in the responsibilities of others.
104. Contributes to social welfare.
Participates in local social work or activities of altruistic nature, and does so on own initiative; gives personal or financial support to such social groups as church, school, welfare organization. Is active member of semi-professional clubs or social groups such as P. T. A., church guild, occupational or political organization.

109. Inspires confidence.
Is relied on in times of stress or need; is helpful in emergency. Is consulted in matters requiring leadership or good judgment. Fills position of social trust.
110. Promotes civic progress.
Takes active part in advancing commercial, industrial, civic, educational, social movements beyond immediate occupational routine. Is a prominent member of professional, occupational, fraternal, religious, civic, or other group contributing to public welfare.
115. Shares community responsibility.
Participates in general management of large affairs, e.g., as member of board of directors of important business, social, educational, institutional, civic organization. Holds major position of public trust.
117. Advances general welfare.
Has attained wide recognition as one who promotes public progress in philanthropic, religious, educational, cultural, scientific, industrial, patriotic fields.

Appendix B

Copyright, 1936
The Training School at
Vineland, New Jersey
Department of Research

Experimental Form B
Revised 1/15/36

VINELAND SOCIAL MATURITY SCALE

me. Age M.A. Date
 scent Sex Grade I.Q. Born
 cupation Yrs. exp. Class Res.
 ther's occupation Class Schooling
 other's occupation Class Schooling
 ormant Relationship Recorder

marks:

Basal score *
 Additional pts.
 Total score
 Age equivalent
 Social quotient
 Informant's est.

O-I

1. "Crows"; laughs
2. Balances head
3. Grasps objects within reach
4. Reaches for familiar persons
5. Rolls over
6. Reaches for nearby objects
7. Occupies self unattended
8. Sits unsupported
9. Pulls self upright
10. "Talks"; imitates sounds
11. Drinks from cup or glass assisted
12. Moves about on floor
13. Grasps with thumb and finger
14. Demands personal attention
15. Stands alone
16. Does not drool
17. Follows simple instructions

*For method of scoring see Manual of Directions.

I - II

18. Walks about room unattended
19. Marks with pencil or crayon
20. Masticates food
21. Pulls off socks
22. Transfers objects
23. Overcomes simple obstacles
24. Fetches or carries familiar objects
25. Drinks from cup or glass unassisted
26. Gives up baby carriage
27. Plays with other children
28. Eats with spoon
29. Goes about house or yard
30. Discriminates edible substances
31. Uses names of familiar objects
32. Walks upstairs unassisted
33. Unwraps candy
34. Talks in short sentences

II - III

35. Asks to go to toilet
36. Initiates own play activities
37. Removes coat or dress
38. Eats with fork
39. Gets drink unassisted
40. Dries own hands
41. Avoids simple hazards
42. Puts on coat or dress unassisted
43. Cuts with scissors
44. Relates experiences

III - IV

45. Walks downstairs one step per tread
46. Plays cooperatively at kindergarten level
47. Buttons coat or dress
48. Helps at little household tasks
49. "Performs" for others
50. Washes hands unaided

IV - V

51. Cares for self at toilet
52. Washes face unassisted
53. Goes about neighborhood unattended
54. Dresses self except tying
55. Uses pencil or crayon for drawing
56. Plays competitive exercise games

V - VI

- 57. Uses skates, sled, wagon
- 58. Prints simple words
- 59. Plays simple table games
- 60. Is trusted with money
- 61. Goes to school unattended

VI - VII

- 62. Uses table knife for spreading
- 63. Uses pencil for writing
- 64. Bathes self assisted
- 65. Goes to bed unassisted

VII - VIII

- 66. Tells time to quarter hour
- 67. Uses table knife for cutting
- 68. Disavows literal Santa Claus
- 69. Participates in pre-adolescent play
- 70. Combs or brushes hair

VIII - IX

- 71. Uses tools or utensils
- 72. Does routine household tasks
- 73. Reads on own initiative
- 74. Bathes self unaided

IX - X

- 75. Cares for self at table
- 76. Makes minor purchases
- 77. Goes about home town freely

X - XI

- 78. Writes occasional short letters
- 79. Makes telephone calls
- 80. Does small remunerative work
- 81. Answers ads; purchases by mail

XI - XII

- 82. Does simple creative work
- 83. Is left to care for self or others
- 84. Enjoys books, newspapers, magazines

XII - XV

- 85. Plays difficult games
- 86. Exercises complete care of dress
- 87. Buys own clothing accessories
- 88. Engages in adolescent group activities
- 89. Performs responsible routine chores

XV - XVIII

- 90. Communicates by letter
- 91. Follows current events
- 92. Goes to nearby places alone
- 93. Goes out unsupervised daytime
- 94. Has own spending money
- 95. Buys all own clothing

XVIII - XX

- 96. Goes to distant points alone
- 97. Looks after own health
- 98. Has a job or continues schooling
- 99. Goes out nights unrestricted
- 100. Controls own major expenditures
- 101. Assumes personal responsibility

XX - XXV

- 102. Uses money providently
- 103. Assumes responsibilities beyond own needs
- 104. Contributes to social welfare
- 105. Provides for future

XXV +

- 106. Performs skilled work
- 107. Engages in beneficial recreation
- 108. Systematizes own work
- 109. Inspires confidence
- 110. Promotes civic progress
- 111. Supervises occupational pursuits
- 112. Purchases for others
- 113. Directs or manages affairs of others
- 114. Performs expert or professional work
- 115. Shares community responsibility
- 116. Creates own opportunities
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